



Central Puget Sound Regional Fare Coordination System

Portable Fare Transaction Processor Operations Manual - Vanpool

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1 Introduction

The Portable Fare Transaction Processor (PFTP) for the Vanpool is a portable device that can be used for a variety of purposes in the Automated Fare Collection (AFC) system of the Central Puget Sound Regional Fare Coordination System (RFCS). The PFTP provides the following functions:

- Operator login and logoff procedures
- Operator shift and trip functionality
- The following optional business functions:
 - Fare Payment
 - Card Inquiry
- Configuration data (CD) and usage data (UD) transfer

In order to travel on the transit services, passengers present a smart card to the PFTP, which has a card reader located at the top of the device. These transactions are held at the device and later passed from the device to a central computer known as the Data Acquisition Computer (DAC), via a modem. This information is referred to as usage data (UD) and includes payments, schedules, and shift details that are recorded to the DAC.

The DAC also sends information to the PFTP via modem connection. This information is referred to as configuration data (CD), and it includes such information as timetables, fares, and device settings.

1.1 Purpose

This document provides detailed information for operators in the use of the PFTP handheld device.

1.2 Scope

The scope of this document is limited to instructions relating to the navigation of relevant operator screens on the PFTP and the collecting of fares.

1.3 Training Mode

Both Operator and Fare Cards can be ordered with the Training Mode bit enabled. Cards set as Training Mode cards can only be used for Training Mode.

When in Training Mode, the following indicator appears to the left of the Battery icon in the upper right corner: (T), as shown in Figure 1.

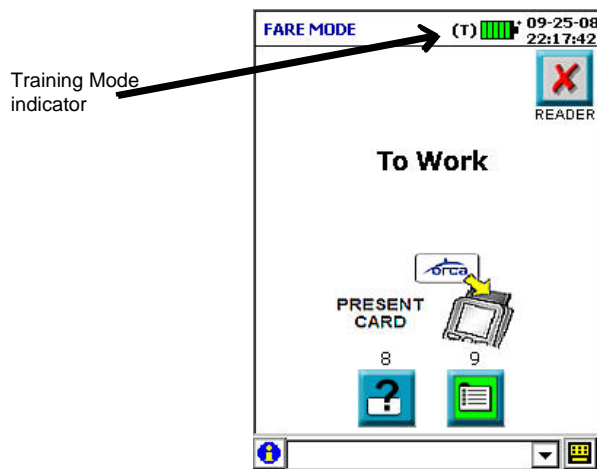


Figure 1: PFTP Training Mode indicator – Fare Mode example

When operating in Training Mode, the PFTP operation is identical to normal revenue operation except as follows:

1. The PFTP remains in Training Mode until the operator logs off.
2. All UD records have the environment set to Training Mode.
3. No Audit Registers are updated.

Note: Training Mode transactions follow the same data path as normal transactions (to the DAC, BOC, and Clearing House). This enables end-to-end testing (card to Clearing House) to be conducted in the revenue system. Note that while training transactions are cleared, they are not included in financial settlement.

For normal operations, the PFTP will reject Training mode fare cards. In Training mode, the PFTP will reject normal fare cards (i.e. fare cards that do NOT have the Training bit enabled).

2 Device Overview

The PFTP device provides operators with the ability to:

- Accept fares and passes
- Inspect passenger cards
- Provide card details to passengers.

The PFTP device has a display screen that shows the details of transactions. There are two ways information can be entered:

- **The Display Screen** — Display screen icons and buttons may be selected using the stylus that is provided with the PFTP. In addition, there is a keyboard icon that displays a QWERTY keyboard on the display screen. The keyboard can be used to enter text by tapping with the stylus.
- **The Keypad** — Icons and buttons on the display screen can be selected by pressing the corresponding hotkeys on the keypad. The Directional Toggle Button can be used to change items highlighted for use on the display screen.



Figure 2: Portable Fare Transaction Processor (PFTP)

When using the stylus and the display screen keyboard:

- Do not rest your fingers or hand on the display screen while using the stylus to select keys.
- Do not use anything but the stylus. A pen, pencil, or other pointed object can damage the display screen.
- Press and tap firmly when using the stylus. The display screen is designed for use with the stylus.

The keypad of the PFTP is similar to a cell phone keypad. The keypad has:



















- Alphanumeric keys to enter information, or that can be used as hotkeys to execute functions shown on the display screen





























- Directional toggle button that is used to change the selection of the highlighted item on the display screen

2.1 Screen Icons and Buttons

Most icons shown on the display screen have a corresponding hotkey on the PFTP keypad. Table 1 displays icons and their equivalent hotkey buttons. Some icons and hotkey buttons have functions that change between screens.

Table 1: Display Screen Icons and Keypad Button Reference Chart

Display Screen icon or action	Description	Equivalent Keypad hotkey	Used
Tap on screen	Backlight on		Used when the display screen goes to 'sleep'
	Back to previous screen		LOG IN screen
	Check icon		INFORMATION screen
	Select Role icon		LOG IN screen
	Options icon		FARE MODE screen
	Card Reader On icon	No equivalent	Shows that the card reader has been activated
	Card Reader Off icon		Shows the card reader is deactivated. Tapping the display screen button or pressing the hotkey activates the card reader.
	Information icon	No equivalent	LOG IN screen
	Escape icon		On some screens, pressing the Enter key will also activate the ESC function
	Tab on screen keyboard		Moves cursor to next text entry field
Clicking in next text entry field using the hand-held stylus	Tab		Moves cursor to next text entry field

Display Screen icon or action	Description	Equivalent Keypad hotkey	Used
	Keyboard icon	No equivalent	Displays/hides the display screen keyboard
	Fare Processor Role		SELECT ROLE screen
	Supervisor Role		SELECT ROLE screen
	Maintenance Role		SELECT ROLE screen
	Inquiry icon		START TRIP screen FARE MODE screen
	Options icon		START TRIP screen FARE MODE screen
	Scroll down icon		START TRIP screen
	Scroll down icon		Moves cursor to next text entry field
	Vehicle Override drop-down icon		FARE MODE screen
	Drop-down menu icon		CARD INQUIRY screen
	Field Inquiry icon	Equivalent numbered button i.e. 	CARD INQUIRY screen
Select from drop-down menu using stylus	Select from drop-down menu		CARD INQUIRY screen
	Lock icon		TRIP OPTIONS screen (SHIFT OPTIONS screen)
	End Trip icon		TRIP OPTIONS screen
	Audio icon		TRIP OPTIONS screen (SHIFT OPTIONS screen)

Display Screen icon or action	Description	Equivalent Keypad hotkey	Used
	List Trips icon		SUPERVISOR screen
	Trips Totals icon		SUPERVISOR screen
	Shift Totals icon		SUPERVISOR screen
	Calibrate icon		MAINTENANCE screen
	Connect icon		MAINTENANCE screen
	Battery icon		MAINTENANCE screen
	CD List icon		MAINTENANCE screen
	AR List icon		MAINTENANCE screen
	Configure icon		MAINTENANCE screen
	Audio icon		MAINTENANCE screen
	Lock icon		SHIFT OPTIONS screen (TRIP OPTIONS screen)
	End Shift icon		SHIFT OPTIONS screen
	Audio icon		SHIFT OPTIONS screen (TRIP OPTIONS screen)

2.2 Screen Layout

Figure 3 shows the various ways information appears on the display screen.

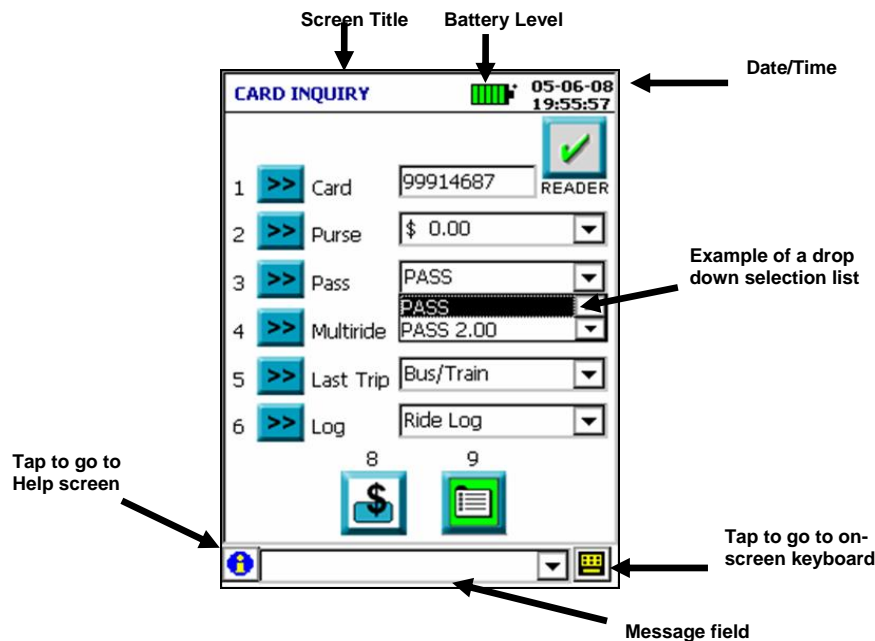


Figure 3: Example Display Screen

The display includes:

- **Indicators** – The top bar of the display screen shows information about the screen title, the battery status, the date, and the time.
- **Display Screen Text information** – During different actions, information will be provided to assist the user.
- **Display Screen Buttons** – Buttons have a beveled edge and can be tapped with the stylus to carry out specific actions.
- **Icons** – A small picture or symbol used to represent an item or to go to another screen. Icons will appear within the display window to operate in much the same way as display screen buttons.
- **Drop-down Lists** – A fixed list of options or functionalities from which the user can choose. The drop-down menu can be fully accessed by clicking on the down arrow button to the right of a selection box: Sometimes an option in such a list activates a new menu (for example, the sorting option). Select the required item by tapping it.

The bottom right corner of the screen displays a keyboard icon, which can be tapped to display or hide the on-screen keyboard.



Figure 5: Screen Keyboard Icon

The display screen keyboard is based on the characters available on a standard QWERTY keyboard. Due to limitations on screen space, the keyboard is presented in several views, with each view displaying a subset of the available characters.

The default view shows lower case characters, digits, and punctuation. The large button on the bottom row inserts a space character.

1	2	3	4	5	6	7	8	9	0	-	=	⬅
Tab	q	w	e	r	t	y	u	i	o	p	[]
CAP	a	s	d	f	g	h	j	k	l	;	'	
Shift	z	x	c	v	b	n	m	,	.	/	↵	
Ctl	á	ü	`	\						↓	↑	←

Figure 6: Keyboard display – Lower Case

Tapping the **CAP** key displays the upper case characters and a second set of punctuation characters. Tapping the **CAP** key again reverts to the default view.

!	@	#	\$	%	^	&	*	()	_	+	Del
Tab	Q	W	E	R	T	Y	U	I	O	P	{	}
CAP	A	S	D	F	G	H	J	K	L	:	"	
Shift	Z	X	C	V	B	N	M	<	>	?	↵	
Ctl	á	ü	~							↓	↑	←

Figure 7: Keyboard display – Upper Case

Tapping the **Shift** key when the **CAP** view is active temporarily converts the keyboard to title case - one character in upper case followed by lower case for subsequent characters.

1	2	3	4	5	6	7	8	9	0	-	=	⬅
Tab	q	w	e	r	t	y	u	i	o	p	[]
CAP	a	s	d	f	g	h	j	k	l	;	'	
Shift	z	x	c	v	b	n	m	,	.	/	↵	
Ctl	á	ü	`	\						↓	↑	←

Figure 8: Keyboard display – Title Case

Tapping the **áü** key displays a set of lower case special characters.

ı	ı	ç	€	£	¥	§	¶	±	°	«	»	←
Tab	à	á	â	ã	ä	å	æ	ç	ð	è	é	ê
CAP	ë	ì	í	î	ï	ñ	ø	œ	ò	ó	ô	
Shift	õ	ö	ß	þ	ù	ú	û	ü	ý	µ	↵	
Ctl	áü	®	©						↓	↑	←	→

Figure 9: Keyboard display – Special Characters Lower Case

Tapping the **CAP** key when the **áü** view is active displays the corresponding set of upper case characters, and tapping the **Shift** key when the **áü** view is active temporarily converts the keyboard to title case.

ı	ı	ç	€	£	¥	§	¶	±	°	«	»	Del
Tab	À	Á	Â	Ã	Ä	Å	Æ	Ç	Ð	È	É	Ê
CAP	Ë	Ì	Í	Î	Ï	Ñ	Ø	Œ	Ò	Ó	Ô	
Shift	Õ	Ö	ß	þ	ù	ú	û	ü	ý	µ	↵	
Ctl	áü	®	©						↓	↑	←	→

Figure 10: Keyboard display – Special Characters Upper Case

2.5 Correcting Text

If you need to correct text:

- On the lower case keyboard, use the **Backspace** arrow to delete characters to the left of the cursor.
- On the upper case keyboard, use the **Del** key to delete characters to the right of the cursor.
- On the keypad, use the **BKSP** button to delete characters to the left of the cursor
- On the keypad, use the blue **FN** button before the **BKSP** button deletes characters to the right of the cursor.

2.6 Moving the Cursor Between Fields

Tap the **Tab** key on the keyboard to move the cursor from one field to the next or use a **Directional Arrow** key (see Figure 11).

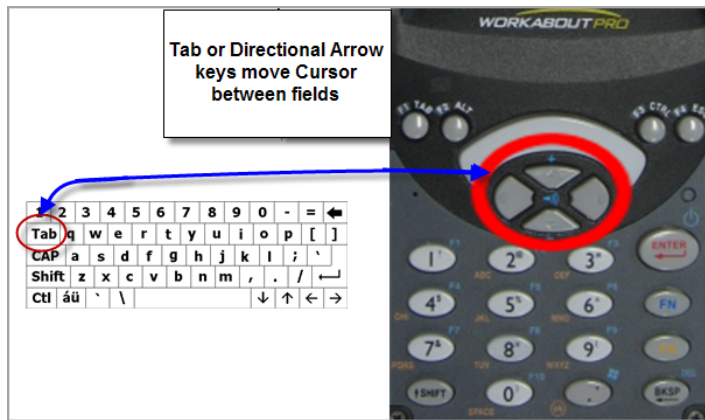


Figure 11: Directional Keys

You can cycle through the fields in the reverse direction by tapping the **Shift** key before each tap of the **Tab** key or using the opposite **Directional Arrow** key.

3 Operation

This section describes the operation of the PFTP. The topics discussed are:

- Startup
- View Information screen
- Start Shift
- Select Role
- Start Trip
- Fare Mode
- Transactions
- Inquiry
- End Trip/End Day
- End Shift
- Lock/Unlock Device

3.1 Startup

When the PFTP device first is powered on, the device attempts the process of sending and receiving CD and UD from the DAC to the PFTP. If the Vanpool PFTP is not in its charging cradle, this attempt will be unsuccessful; however, the PFTP will continue the power up process, which ends in displaying the Login screen. If the PFTP is not correctly configured, the sending and receiving of data will need to take place before PFTP can be used. User action is indicated by the use of numbers.

To start up the PFTP device:

1. Press the **Power** hotkey.



Figure 12: Power hotkey and Power symbol

The **Initializing** screen is displayed while the device starts up.

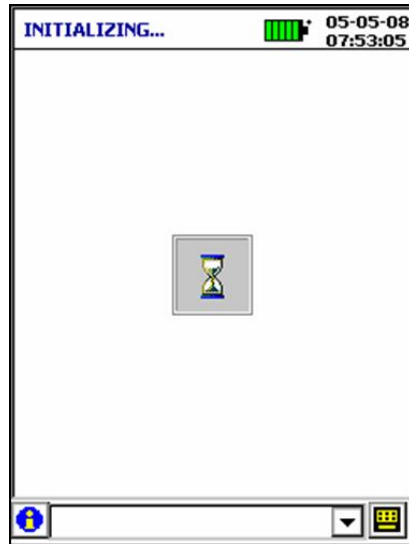


Figure 13: Initializing Screen

The **Connecting...** screen is displayed while the device attempts to connect to the DAC.



Figure 14: Connecting... screen

The **Connected** screen is displayed when connection to the DAC is established.



Figure 15: Connected screen

The latest CD automatically downloads from the DAC to the PFTP, and the latest UD uploads from the PFTP to the DAC.

The **Connect Failed** screen is displayed when the attempted connection to the DAC fails. This may happen because the PFTP is not in its charging cradle or because of a problem with the DAC itself. The PFTP will continue the startup sequence to display the user **Log In** screen. See Figure 19 on page 21.



Figure 16: Connect Failed screen

When the connection is successful, the **Data Transfer** screen indicates the transfer progress of data sent and received by the DAC and the PFTP.

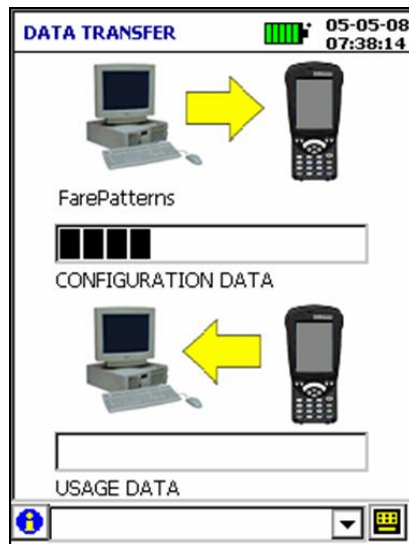


Figure 17: Data Transfer screen

In the event of an RFCS upgrade, the new version of the software application is downloaded with the following message displayed.

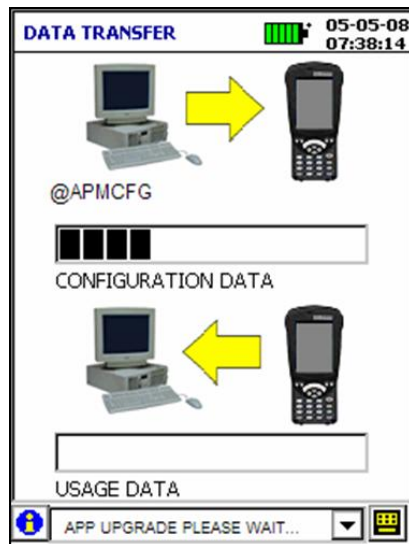


Figure 18: Data Transfer screen during Application Upgrade

When the data transfer is complete, the **Log In** screen is displayed.

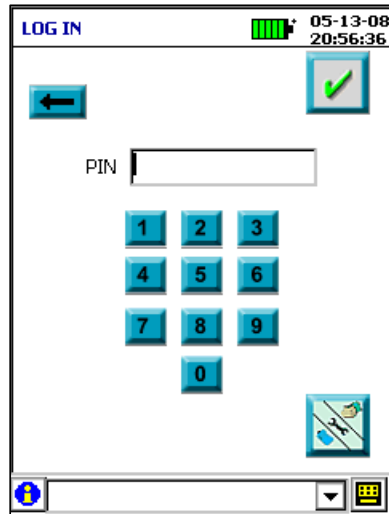


Figure 19: Log In screen

If the device is already powered up, initialized, and configured, the **Log In** screen is the first screen the operator will see after waking the device from Power Save mode.

NOTE: The **Vanpool PFTP** must be periodically returned to its cradle for charging and **UD/CD** transmissions. **Agency** policy will dictate where a specific **Vanpool PFTP**'s charging cradle is located and how often the **PFTP-PFTP** must be returned to its cradle.

Comment [jb1]: CR-002345

3.2 View Information Screen

The Information screen provides details about the owner of the PFTP device and contact information if the device is lost or stolen.

To view the **Information** screen:

1. Tap the screen to display the **Log In** screen.
- At the **Log In** screen:
2. Tap the **Information** icon.

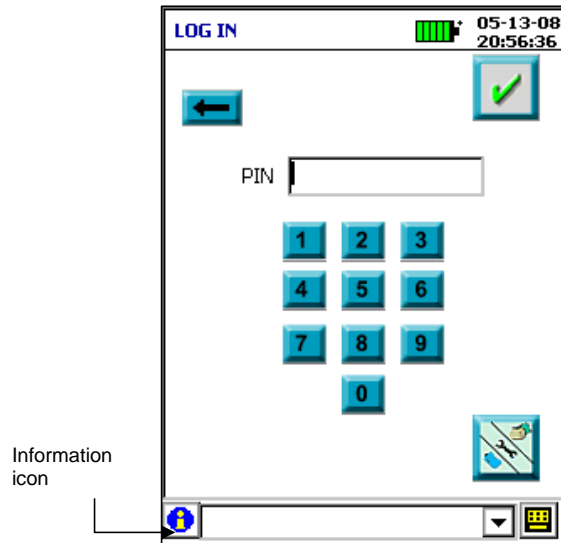


Figure 20: Icon for Information

- A popup menu is displayed.
- Tap the **About HCP** list item.

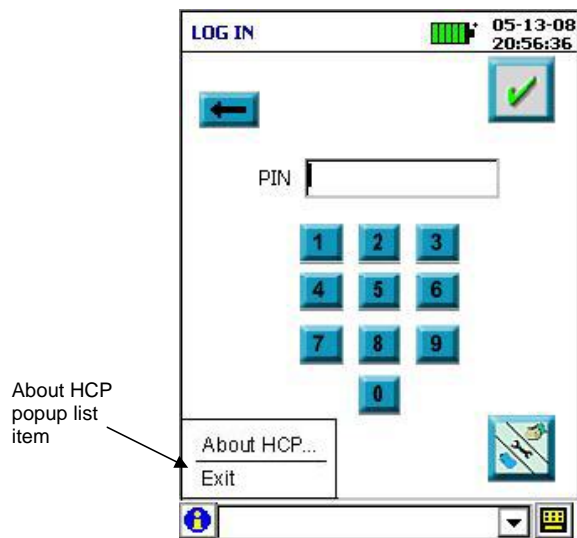


Figure 21: Information menu

The **Information** screen is displayed.

3. To return to the previous screen, tap the **ESC** button.



Figure 22: Information screen

3.3 Start Shift

Each authorized operator of the PFTP has his or her own operator card and related Personal Identification Number (PIN).

To log in to the PFTP:

Ensure the power for the device is turned on by pressing the **Power** hotkey, which is located at the top of the device, on the right side.

The **Log In** screen is displayed.

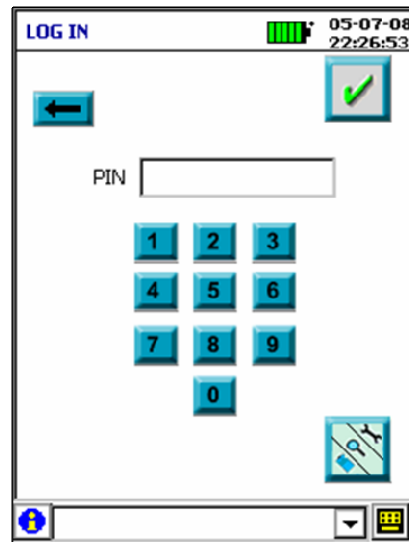


Figure 23: Log In screen

The PFTP will use the default login role on the card. If you want to log in using a different role, see section 3.5.

1. Enter your personal identification number in the **PIN** field. Use the numbered buttons below the field to enter your PIN.

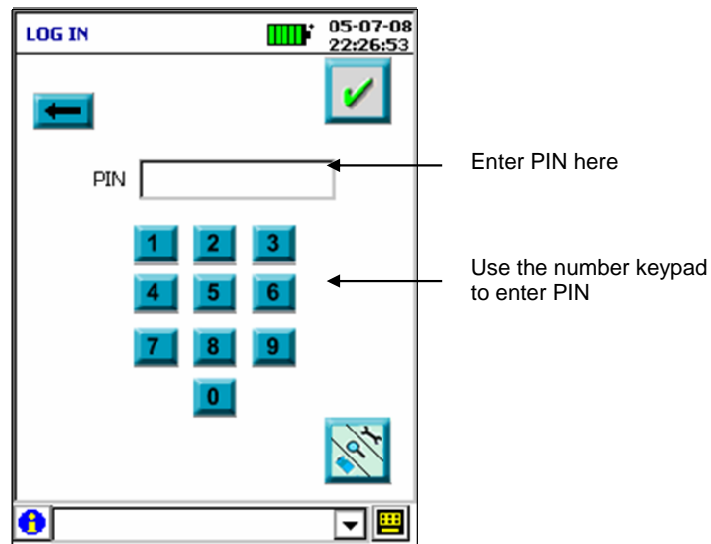


Figure 24: Log In screen

The PIN is displayed as asterisks, so your PIN is kept secret.

2. Tap the **Reader** button.

The **Log In (Present Operator Card)** screen is displayed:

Comment [jb2]: CR-002345

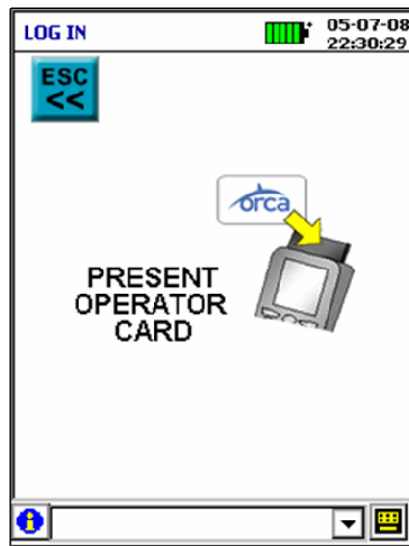


Figure 25: Present Operator Card message

3. Present your operator card at the card reader. This action is referred to as “tagging” the card.

The PFTP will compare your name and the PIN used to the stored logon information. If the name and PIN do not match, the **Incorrect PIN** screen is displayed.

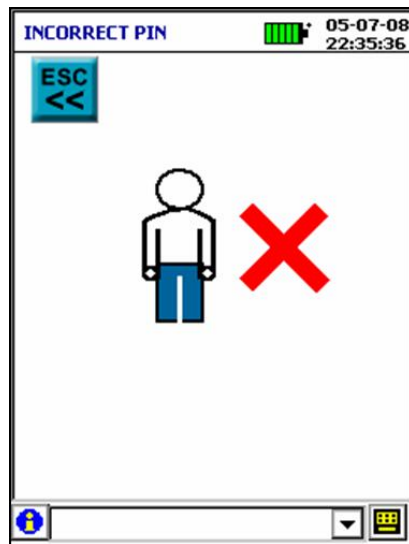


Figure 26: Incorrect PIN screen

If the **Incorrect PIN** screen displays, return to the **Log In** screen by pressing the **ESC** key or by tapping the ESC icon.

Note: When the **Incorrect PIN** screen displays, the card is blocked after a predefined number of invalid retries.

If the log in is valid, the **Start Trip** screen is displayed.

1. Tap the **ROUTE** drop-down arrow.
2. Select the required route by tapping the route in the drop-down list

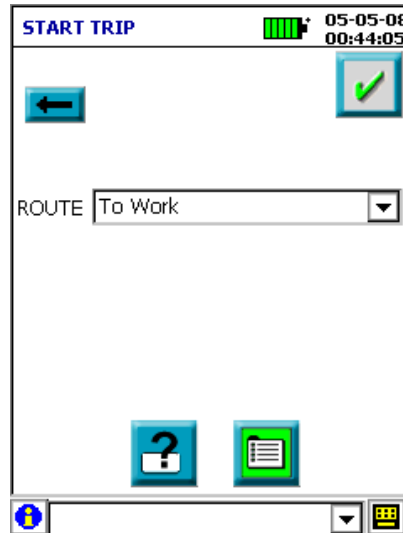


Figure 27: Start Trip screen

3. Tap the **Checkmark** icon or press **Enter** to confirm the **Route** selection.
The **Fare Mode** screen displays.

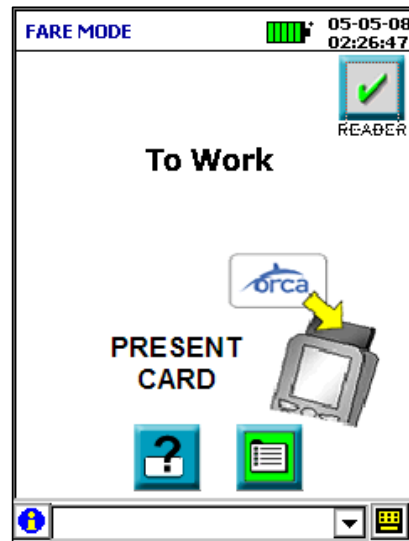


Figure 28: Inspect Cards screen

The PFTP device is now ready for inspecting fare cards and for providing details for passenger inquiries.

3.4 Operator Roles

For vanpools, operator refers to the volunteer bookkeeper. There are three roles that can be allocated to an operator:

- Operator
- Supervisor
- Maintenance ~~Operator~~

Comment [jb3]: CR-002345

This manual covers only the Operator and Supervisor roles. The Maintenance role is covered in a separate maintenance manual.

If you have multiple roles allocated, one role is designated as your default role. When you log in to your default role, you do not need to specifically select that role. At the **Log In** screen, after entering your PIN, you can tap the **CHECK** icon to log in directly.

To log in to a non-default role, after entering your PIN, tap the **Role Selection** button and tap the relevant role button.

3.5 Select Role

This procedure describes how to log in with a non-default role.

1. At the **Log In** screen, enter your **PIN**.
2. Tap the **Role Selection** icon.

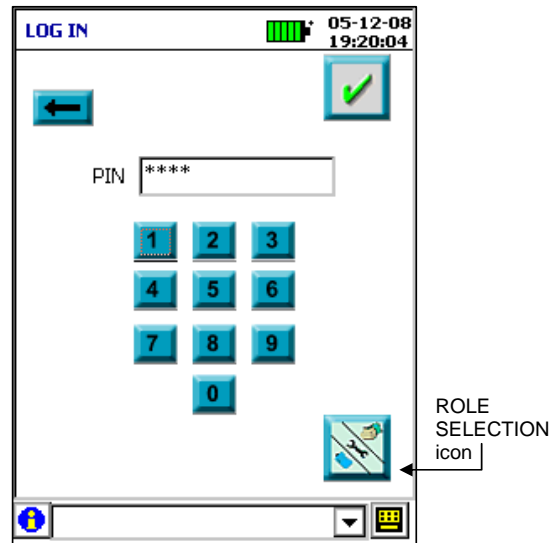


Figure 29: Log In screen

The **Select Role** screen is displayed.

3. Tap the required **ROLE** button.

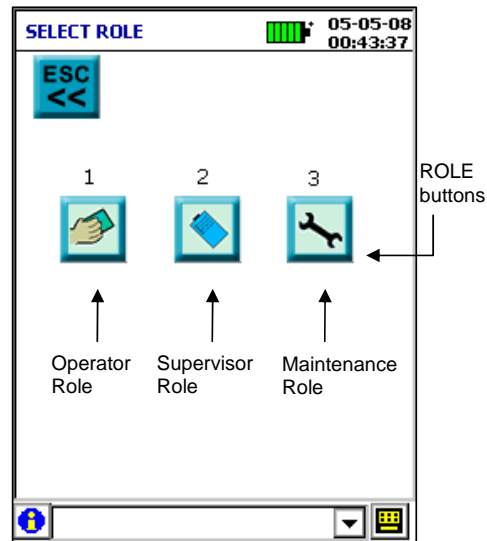


Figure 30: Select Role screen

If you select a role for which you are authorized, the Valid Login screen displays, then the appropriate initial screen for that role is displayed ready for you to proceed.

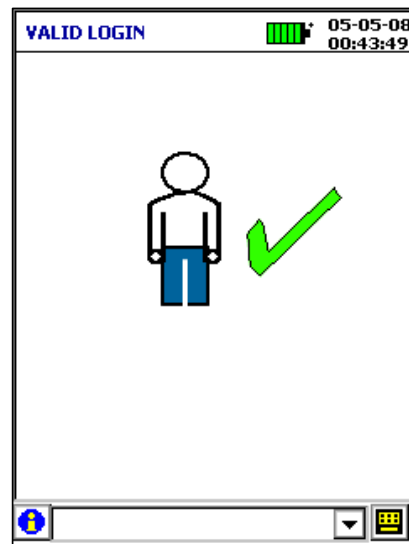


Figure 31: Valid Login screen

If you select a role for which you are not authorized, access is denied and the **Invalid Role** screen is displayed.

To return to the **Select Role** screen, tap the **ESC** button.

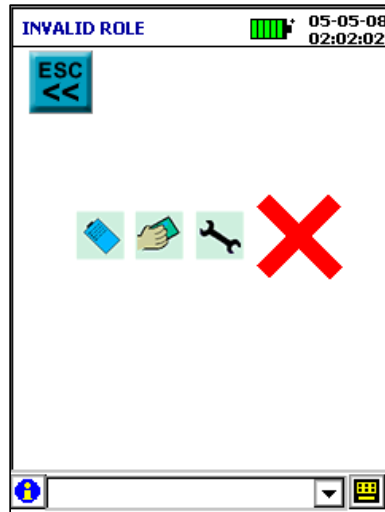


Figure 32: Invalid Role screen

3.6 Start Trip

After logging in to start a shift, you must set the trip parameters before starting the trip so that the correct fare is collected from passengers' fare cards.

After logging in, the **Start Trip** screen is displayed.

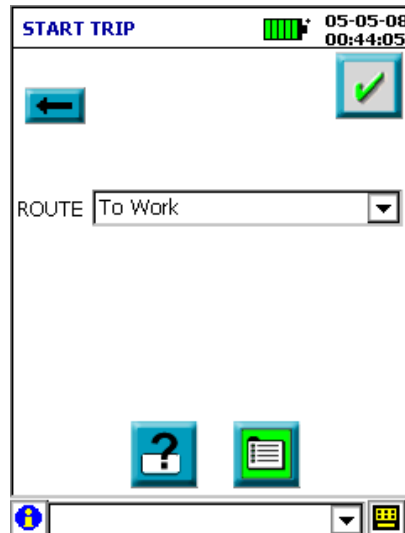


Figure 33: Start Trip screen

1. Tap the **ROUTE** drop-down arrow.

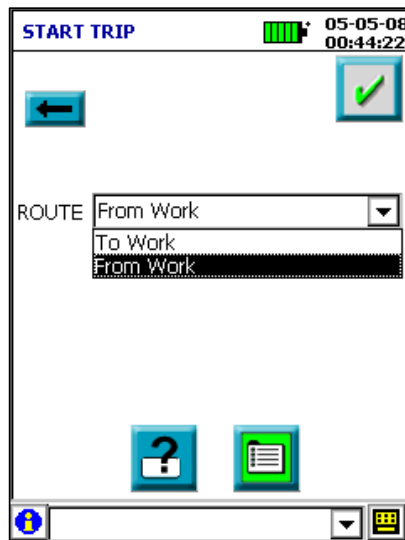


Figure 34: Route drop-down list

2. Select the required route by tapping the route in the drop-down list
3. Tap the **Checkmark** icon or press **Enter** to confirm **Route** selection.

The **Fare Mode** screen displays.

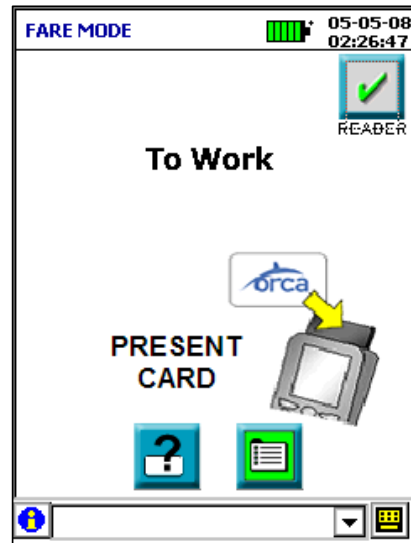


Figure 35: Inspect Cards screen

The PFTP device is now ready for inspecting fare cards and for providing details for passenger inquiries.

3.7 Fare Mode

Upon starting a new trip, the PFTP enters Fare mode. This procedure describes how to process passenger fares.

To process passenger fares:

At the **Fare Mode** screen.

1. If the reader is off, tap the **Reader** button.

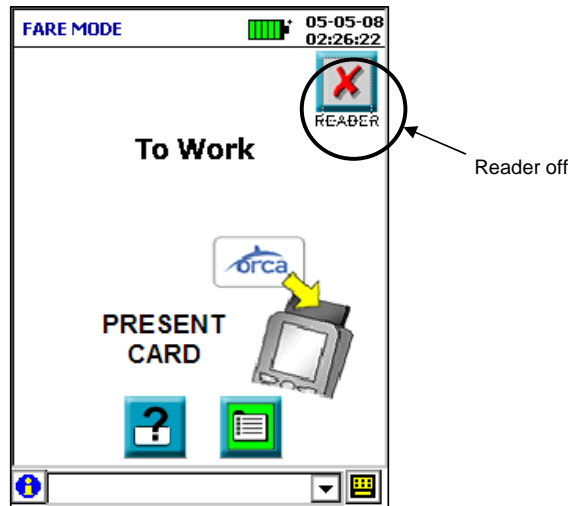


Figure 36: Fare Mode screen – Reader Off

The reader is activated and the icon changes from an "X" to a checkmark.

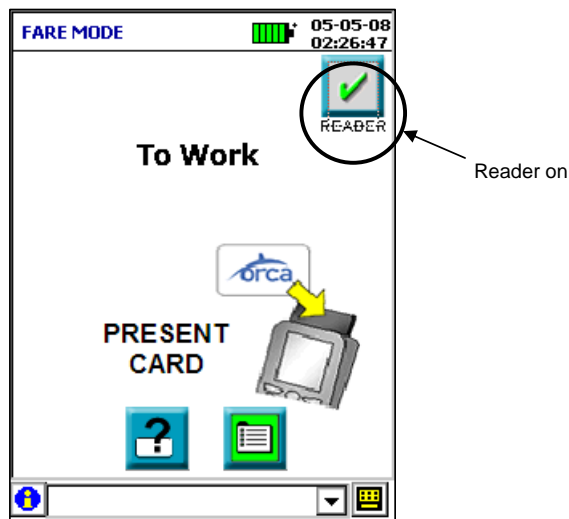


Figure 37: Fare Mode screen – Reader On

2. Present the passenger card to the reader.

The screen displays the fare details, including the product used for this trip and the expiration date of the product. The PFTP sounds a beep.

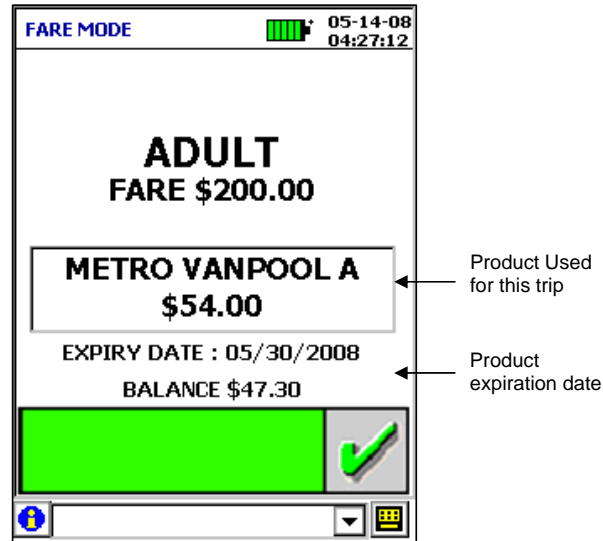


Figure 38: Transaction example

Following a CD-defined timeout, the **Present Card** screen is displayed.

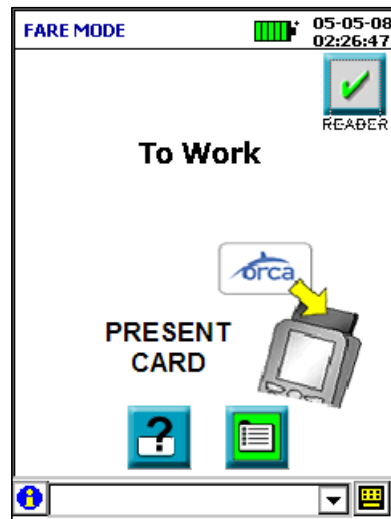


Figure 39: Fare Mode screen – Reader On

3.8 Transactions

This section describes Fare Mode screens that are displayed during various transaction processes. Some processes include the PFTP emitting a range of audible beeps.

3.8.1 Basic Layout

Basic Transaction Screen

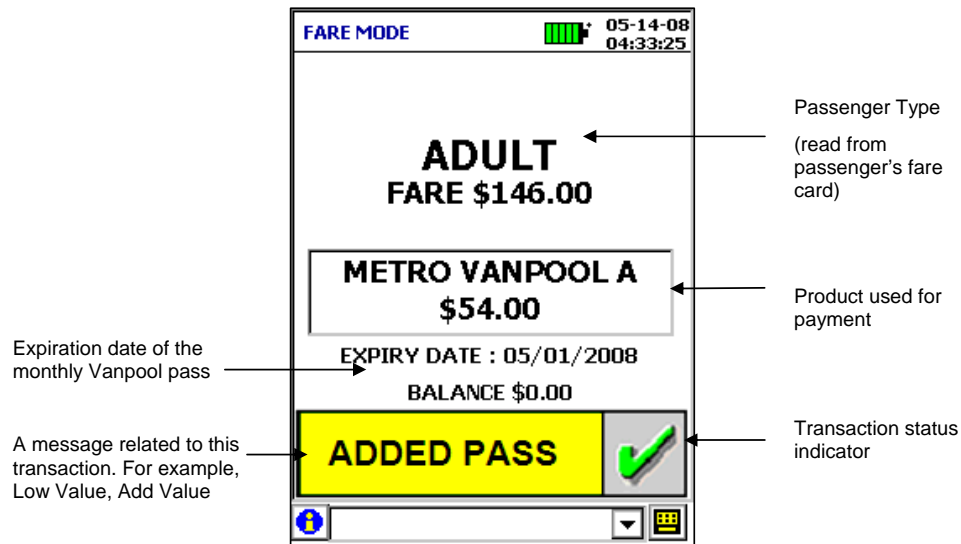


Figure 40: Transaction example

3.8.2 Transaction Type Indicators

The following screens display examples of typical transaction types.

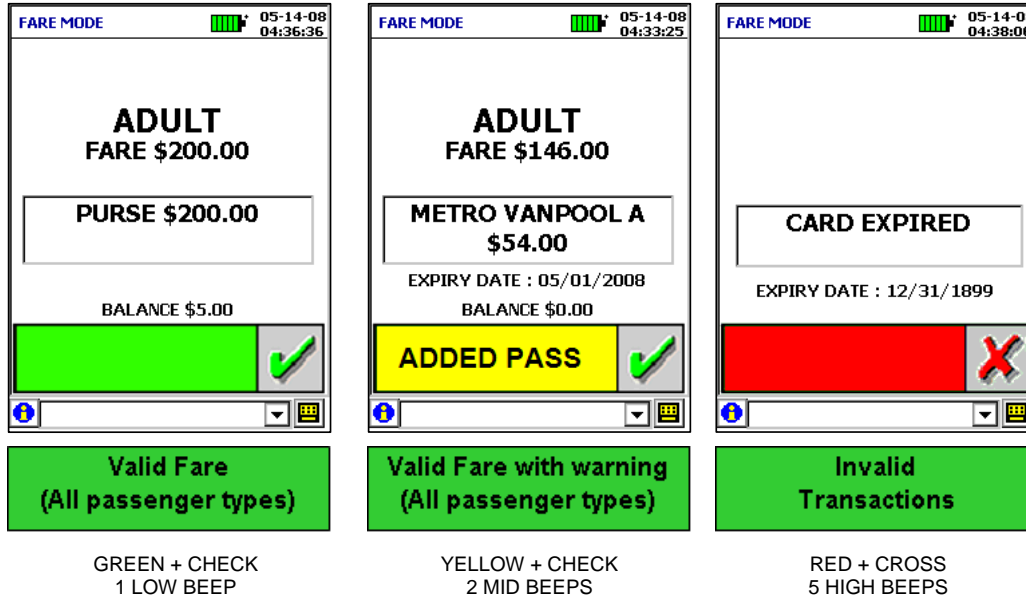


Figure 41: Transaction Type Indicator examples

3.8.3 Transactions by Passenger Types

The following screens are example screens that describe different passenger types.

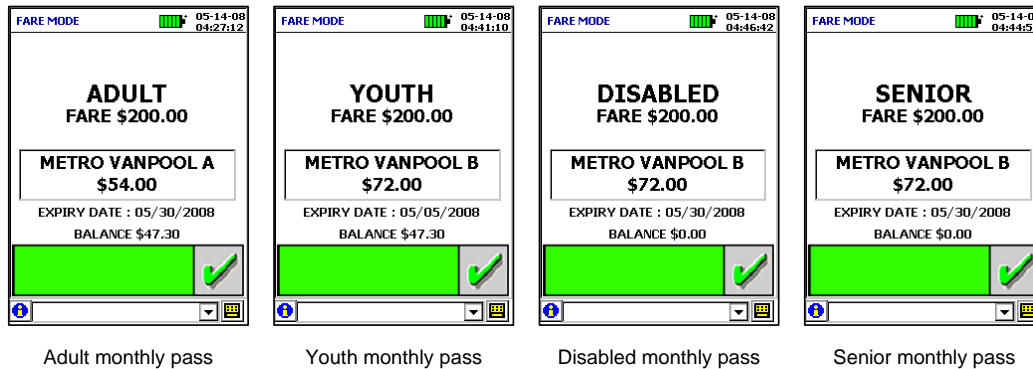
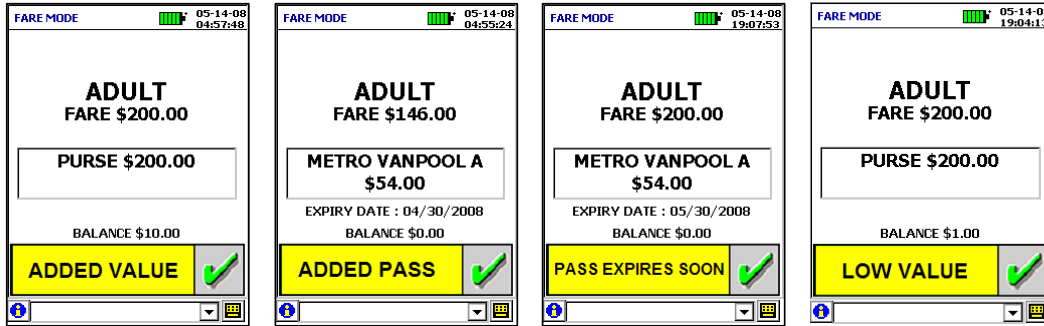


Figure 42: Transaction examples by Passenger Type

3.8.4 Transaction Examples with Warnings

The following screens are example screens that describe different transaction warnings.



Added value to the e-purse

Added a pass to a card

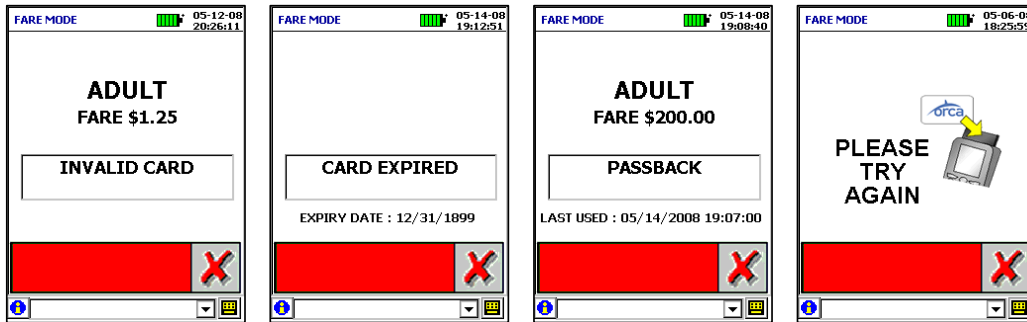
Pass will expire soon

Value in e-purse has
reached a
CD-defined low limit.

Figure 43: Transaction examples with Warnings

3.8.5 Examples of Invalid Transactions

The following screens show examples of invalid use messages.



Invalid for any of the
following reasons:

1. Not a valid pass or insufficient value in e-purse
2. Card marked as lost or stolen. Passenger has to see customer service to get the card unblocked.
3. Not configured as an ORCA card

Card expiration date
reached, replacement card
required.

Passback Violation –
Attempt to use card again
at the same PFTP within
the CD-configured
passback time.

Note: Use Group fare to
pay for multiple
passengers with a single
card.

Incomplete transaction
aborted. Present card
again.

Figure 44: Invalid Transaction examples

3.9 Inquiry Mode

Inquiry mode allows the operator to examine all the information stored on a passenger's fare card.

To make a fare card inquiry:

1. At the **Fare Mode** screen, tap the **Inquiry** button.

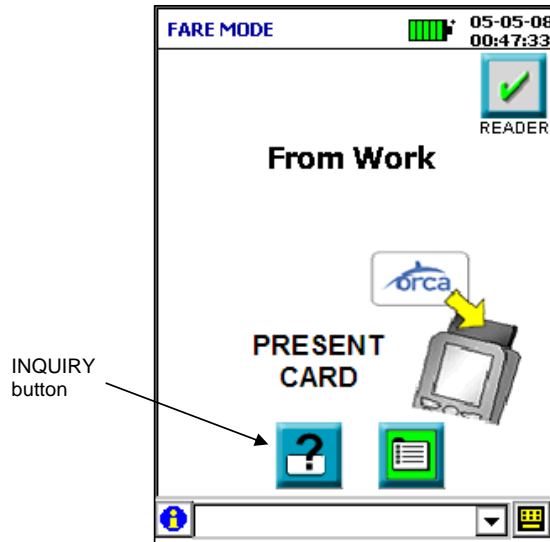


Figure 45: Fare Mode screen – Inquiry button

2. Present a fare card to the reader.

The card details will be displayed in the various fields on the **Card Inquiry** screen:

The screenshot shows a handheld device screen titled "CARD INQUIRY". At the top right, it displays the date "05-06-08" and time "19:54:38" next to a battery level indicator. A green checkmark icon is in the top right corner. Below the title, there are six numbered fields, each with a blue double-right arrow button to its left:

- 1 Card: 99914687 (with a "READER" label to the right)
- 2 Purse: \$ 0.00
- 3 Pass: PASS
- 4 Multiride: -----
- 5 Last Trip: Bus/Train
- 6 Log: Ride Log

At the bottom of the screen, there are two icons labeled "8" and "9": a dollar sign icon and a document icon. A status bar at the very bottom contains an information icon, a dropdown arrow, and a keyboard icon.

Figure 46: Card Inquiry screen

The details are displayed on the **Card Inquiry** screen with the **Card** (number) field highlighted.

There are six different fields of information about the currently tagged card. The following example shows how to access the Pass details.

3. Use the Navigational Toggle Button to highlight the required pass then press the **Enter** hotkey to select it or tap the required item on the **Pass List**.

The Navigational Toggle up and down arrows can be used to move up and down to select different fields on the display screen. The right arrow is used to open a field list. The left and right arrows are used to move up and down the items in the opened list.

This is the **Field Inquiry** button for the Pass field – the same as pressing the related number key

Use this button to open the list.

Select the item on the list that is to be viewed.

Figure 47: Card Inquiry – Pass Data Field

- To view details of the selected item, press the appropriate number hotkey or tap the related **Field Inquiry** button.

This will display the details screen for the selected field. In the following example, the Field Inquiry was made on the **Pass** field, so the **Pass Details** screen is displayed:

ESC button →

Figure 48: Pass Details screen

- When you have finished viewing the details screen, press the **ESC** hotkey or tap the **ESC** icon.

The display returns to the **Card Inquiry** screen with the same card details displayed.

6. Follow steps 3 - 5 to view the details of other fields on the current card.

Note: The details of this card are cleared when another card is presented to the reader.

7. To return to Fare Mode from the Card Inquiry, press the **8** hotkey or tap the **Fare Mode** button.

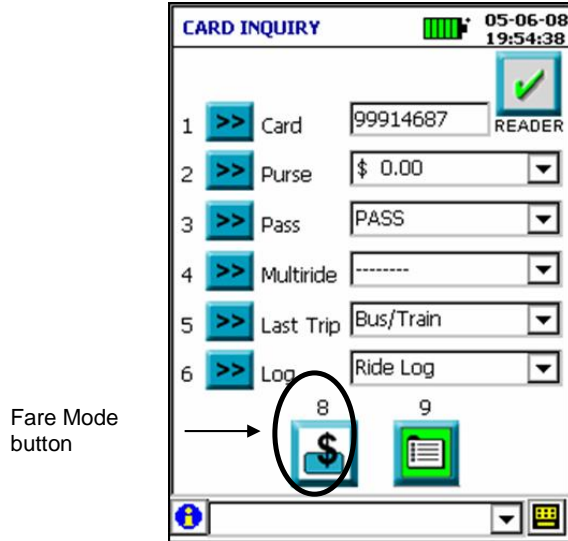


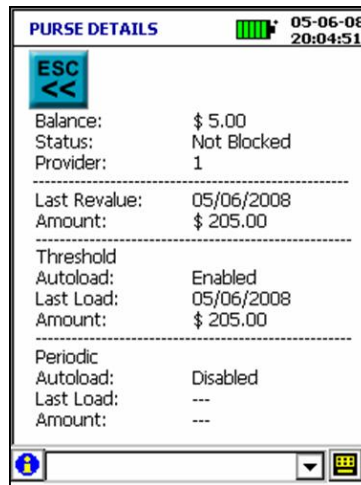
Figure 49: Inquiry screen – Fare mode button

Details of the inquired card are cleared and the display returns to the **Fare Mode** screen.

The following are examples of fare details screens.



Card details



E-purse details

Figure 50: Card Inquiry examples - Card & E-purse Details

PASS DETAILS 05-06-08 19:58:33

ESC <<

Metro Monthly Vanpool

Pass Name: Pass B

Expiration: 05/05/2008 24:00:00

Face Value: \$ 72.00

Status: Not Blocked

Txn Seq #: 02

Autoload: NO

Last Load: ---

Duration: 1 Month/s

Period Start: 04/01/2008 00:00:00

Period End: 05/05/2008 24:00:00

Vanpool #: 1234

Pass details

MULTI-RIDE DETAILS 05-06-08 20:42:16

ESC <<

WSF Mukilteo-Clinton

Product: 10 Ride Return

Status: Not Blocked

Remaining: 10

Expiration: 07/30/2008 24:00:00

Origin: ---

Destination: ---

Last Revalue: ---

Amount: \$ 0.00

Autoload: Disabled

Last Load: ---

Amount: ---

Txn Seq: 000001

Multi-ride details

Figure 51: Card Inquiry examples - Pass & Multi-ride Details

LAST TRIP 05-06-08 20:45:26

ESC <<

Status: Checked In

Agency: KCM

Started: 05/06/2008

Location: Vanpool 1234

Product 1: -----

Product 2: Period/MultiRide

Purse Last: \$ 0.00

Trip Total: \$ 0.00

Last ded: 05/06/2008

Xfr Expiration: 05/06/2008

Last TFC: \$ 0.00

Total TFC: \$ 0.00

Ticket details

LOG DETAILS 05-15-08 01:37:37

ESC << >

RIDE LOG 2 of 7

Validation: Flat Fare Checked In

Date/Time: 05/14/2008 04:55:19

Agency: KCM

Location: Vanpool 1234

Txn Type: Pass Use

Txn Value: \$0.00

Product 1: -----

Balance: -----

Product 2: PASS

Balance: 05/30/2008 24:00:00

Deducted: \$0.00

Log details

Figure 52: Card Inquiry examples - Last Trip Ticket Details & Log Details

3.10 End Trip

This section describes how to exit fare payments at the end of a trip.

1. While in the **Fare Mode** or **Card Inquiry** screen, tap the **OPTIONS** button.

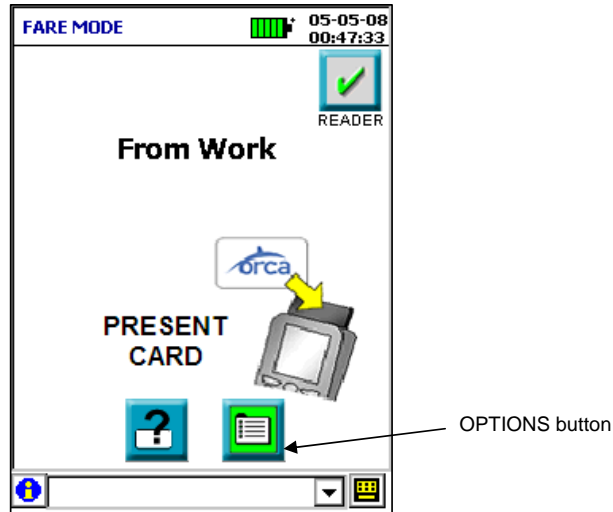


Figure 53: Fare Mode – Options button

The **Trip Options** screen is displayed.

2. Tap the **END TRIP** button

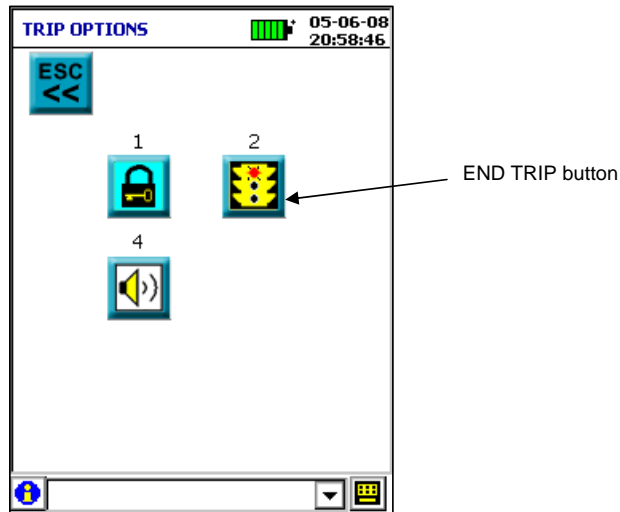


Figure 54: Trip Options screen – End Trip button

The **End Day Trip?** screen is displayed.

Comment [jb4]: CR-002345

3. Tap the **CHECK** button.

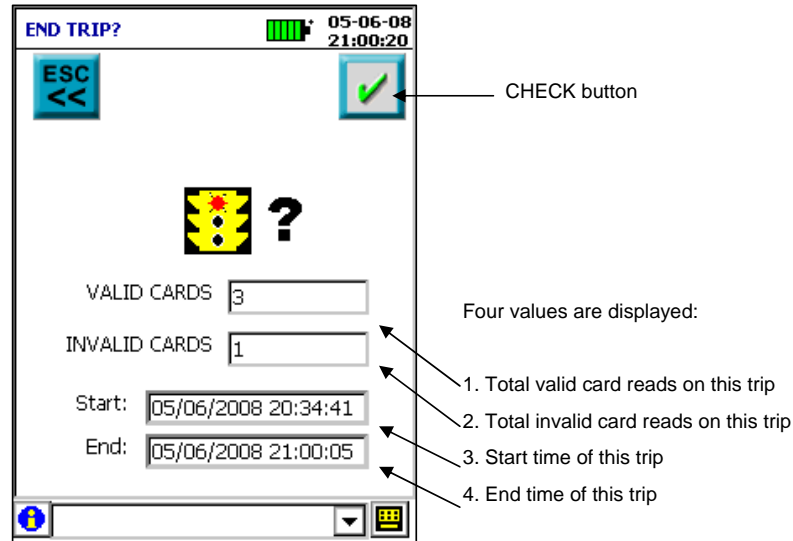


Figure 55: End Trip confirmation screen

The trip ends and the **Start Trip** screen is displayed ready for the operator to select the next trip.

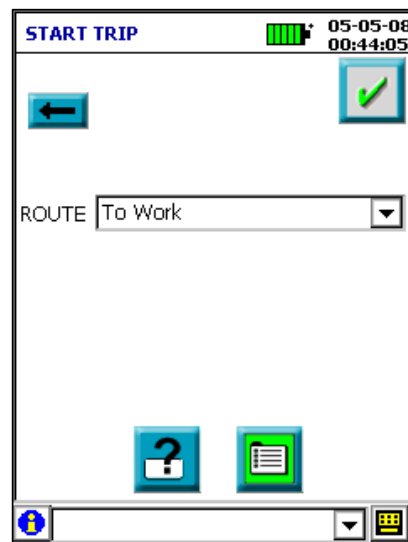


Figure 56: Start Trip screen

3.11 End Shift/End Day

This procedure describes how to finish a shift of work.

While in Start Trip mode:

1. At the **Start Trip** screen, tap the **OPTIONS** button.

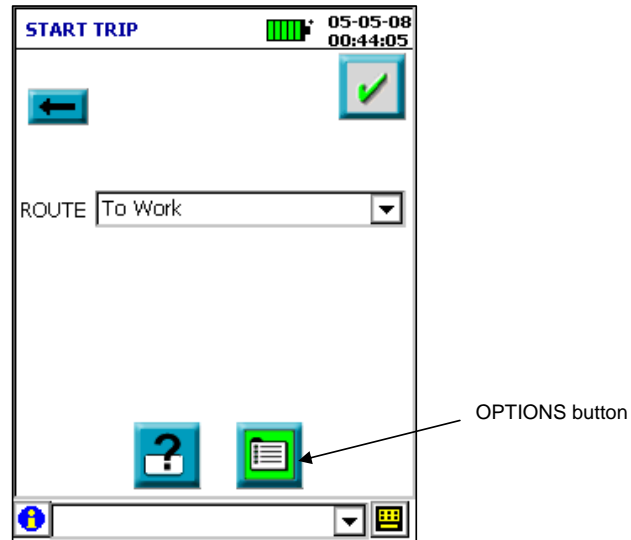


Figure 57: Start Trip screen

The **Shift Options** screen is displayed.

2. Tap the **END SHIFT** button.

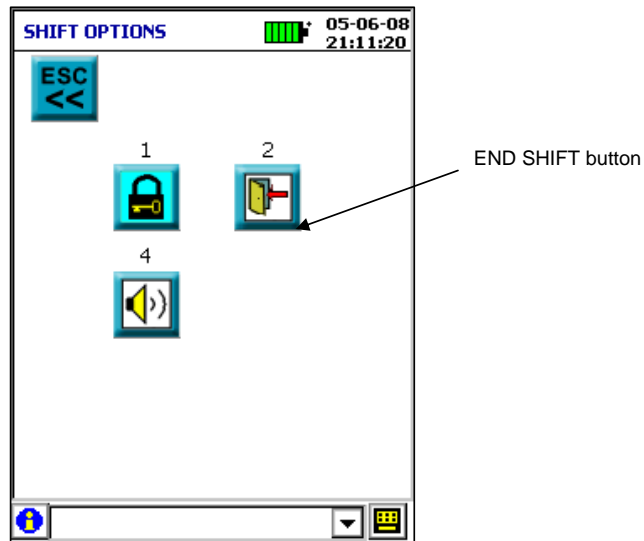


Figure 58: Shift Options screen

The **End Day** screen is displayed.

3. Tap the **CHECK** button to confirm End Day.

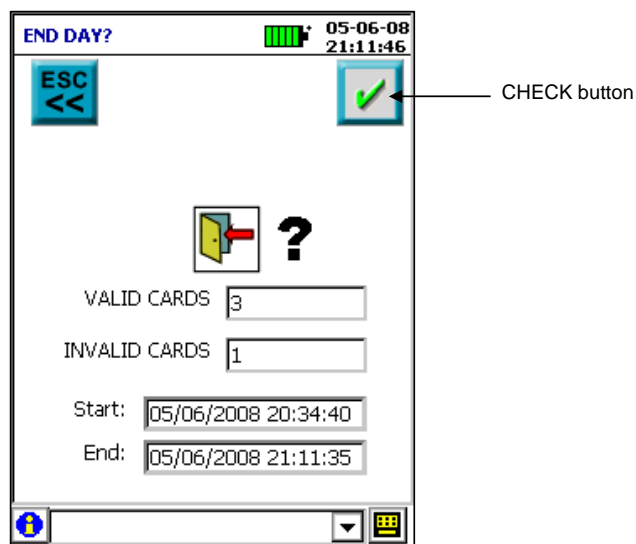


Figure 59: End Day? screen

If possible:

4. Return the PFTP to the charging cradle.

The PFTP is configured to transfer UD to the DAC via a modem connected to a standard telephone line in order to facilitate data transfer.

When the Shift is ended, the PFTP attempts to connect to the DAC and upload UD, whether it is in the cradle or not.



Figure 60: Data Transfer Connecting screen

The trip is ended and the **Data Transfer** screen displays while the fare UD is uploaded to the DAC. If the PFTP fails to connect, because it is not in the cradle or for some other reason, the **Data Transfer Failed** screen displays.



CD/UD Transfer Successful



Data Transfer Failed

Figure 61: Data Transfer screen – Success and Failure examples

Tapping the **Connected** or **Connect Failed** screens causes the **Log In** screen ~~is to be~~ displayed.

Comment [jb5]: CR-002345

Comment [p6]: COM-v6.0-001

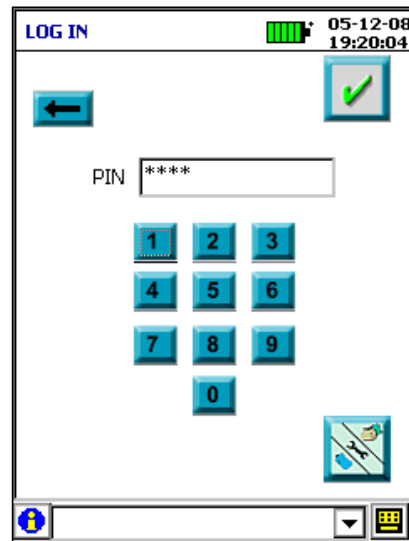


Figure 62: Log In screen

NOTE: The **Vanpool PFTP** must be periodically returned to its cradle for charging and **UD/CD** transmissions. **Agency** policy will dictate where a specific **Vanpool PFTP**'s charging cradle is located and how often the PFTP must be returned to its cradle.

3.12 Lock/Unlock Device

The PFTP can be locked to stop unauthorized use. The PFTP also has an Auto Lock, which locks the device automatically when the device has not been used for a preset amount of time.

3.12.1 Locking the PFTP Device

To lock the PFTP device:

1. At either the **Fare Mode** or the **Start Trip** screen, press the **9** hotkey or tap the **Options** button.

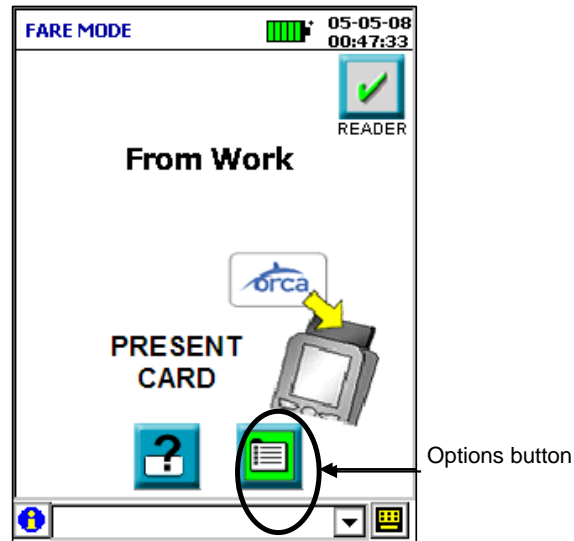


Figure 63: Fare Mode screen – Options button

The relevant options screen is displayed.

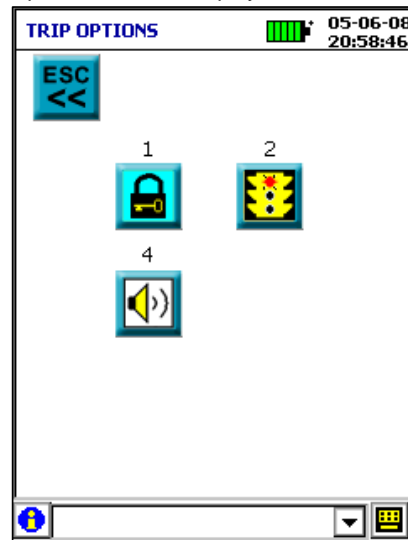


Figure 64: Trip Options screen

To cancel from the options screen, press the **ESC** hotkey or tap the **ESC** icon. The display will return to the previous screen (**Start Shift** or **Fare Mode**).

2. Press the **1** hotkey or tap the **Lock** button.

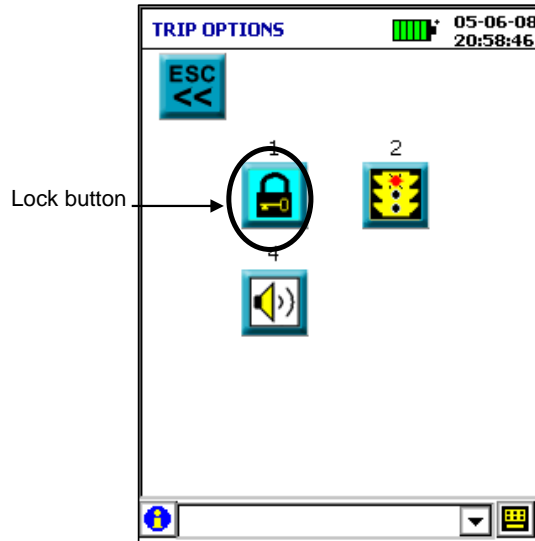


Figure 65: Trip Options screen – Lock button

The device will now be locked from use, and the **Device Locked** screen will be displayed.

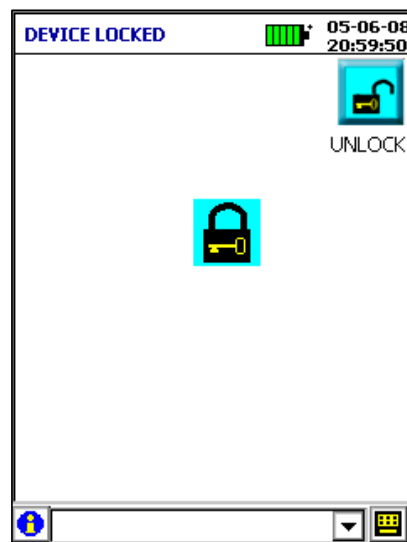


Figure 66: Device Locked screen

3.12.2 Unlocking the PFTP Device

To unlock the PFTP device:

1. At the **Device Locked** screen, press the **Enter** key (or tap the **Unlock** button).

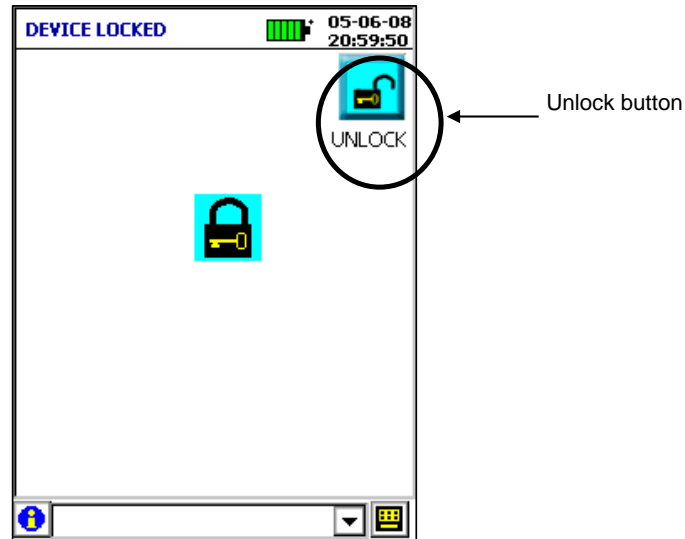


Figure 67: Device Locked screen – Unlock button

The **Log In** screen is displayed.

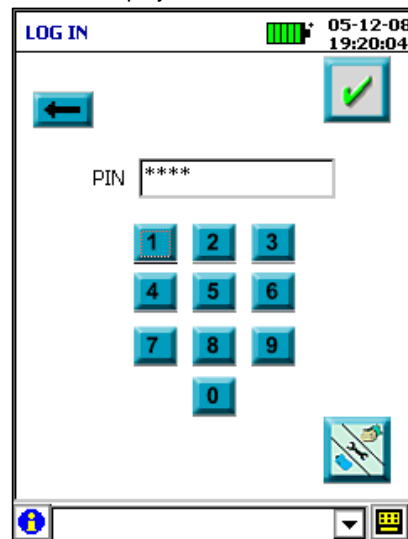


Figure 68: Log In screen

2. Fill in your **PIN**.

3. Press the **Enter** hotkey or tap the **Check** icon.

The display returns to the screen from which the device was locked.

4 Supervisor Mode

For an operator to Log In to Supervisor Mode, the PFTP device will have to be powered on. Press the **ESC** hotkey or tap the **ESC** button. The display will return to the **Log In** screen.

1. At the **Log In** screen, enter your Name and Password.
2. Press the **Select Role** hotkey or tap the **Select Role** icon.

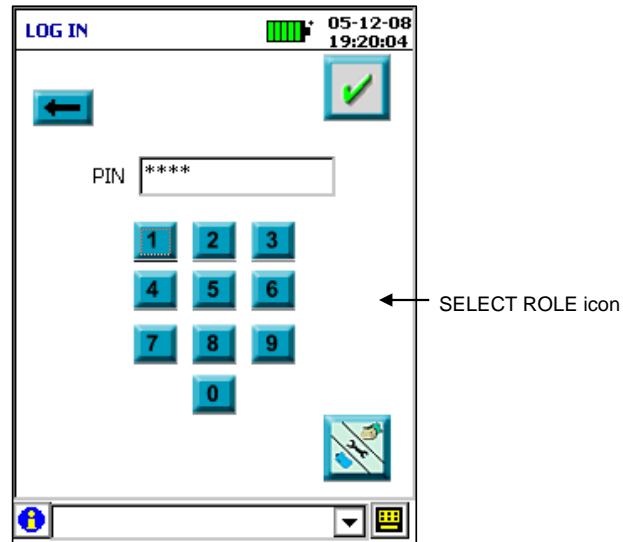


Figure 69: Log In screen

The **Select Role** screen is displayed.

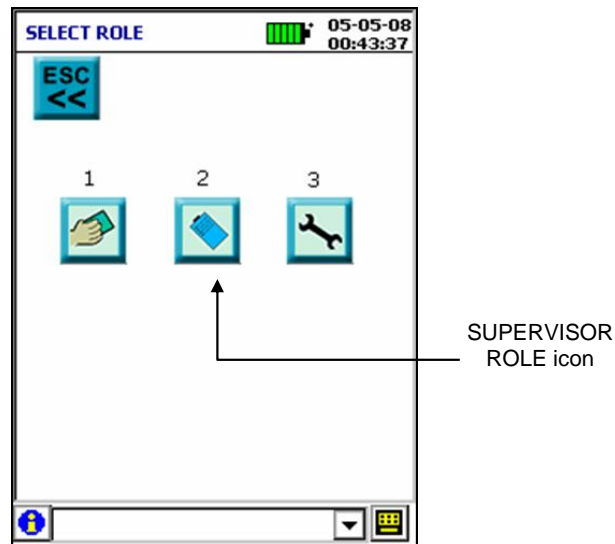


Figure 70: Select Role screen – Supervisor Role button

3. Press the **2** hotkey or tap the **Supervisor Role** icon.

The **Supervisor** screen is displayed.

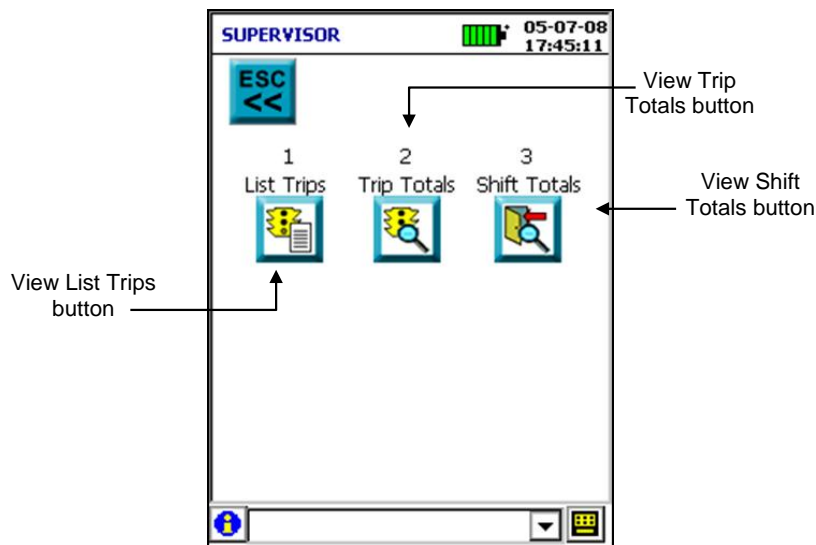


Figure 71: Supervisor screen

4. Press a number hotkey that corresponds to the desired task, (**1**, **2** or **3**) or tap the required button on the display screen.

4.1 Examples of Supervisor Screens

This section shows examples of the Supervisor screens that are displayed on the PFTP.

4.1.1 View Trips

This screen displays a list of the trips for the current shift.

Press the **List Trips** hotkey



or tap the **List Trips** button

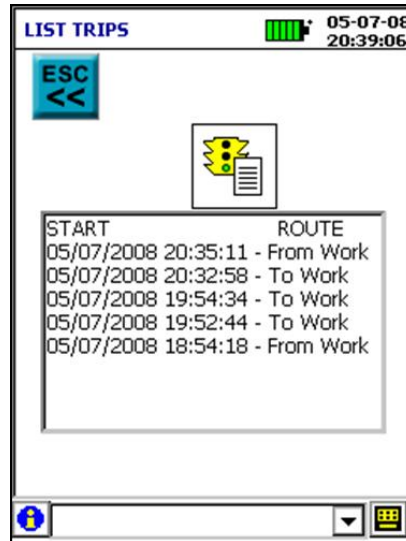


Figure 72: List Trips button and List Trips screen

4.1.2 View Trip Totals

The **Trip Totals** screen shows the total fares and total reversed fares for the current trip.

Press the **Trip Totals** hotkey



or tap the **Trip Totals** button

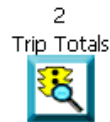


Figure 73: Trip Totals button and Trip Totals screen

4.1.3 View Shift Totals

The **Shift Totals** screen shows the total fares and total reversed fares for all trips on the current shift.

Press the **Shift Totals** hotkey



or tap the **Shift Totals** button

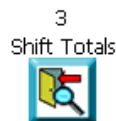


Figure 74: Shift Totals button and Shift Totals screen

4.2 Exit Supervisor Mode

To exit Supervisor mode:

1. Press the **ESC** hotkey or tap the **ESC** icon.

The display returns to the **Log In** screen.

5 Adjust Volume

To adjust the volume on the PFTP device:

1. At either the **Fare Mode** or the **Start Trip** screen, press the **9** hotkey or tap the **Options** button.

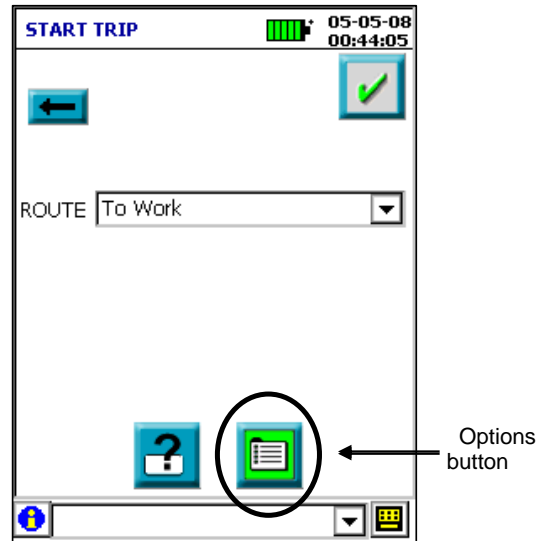


Figure 75: Start Trip screen – Options button

The **Trip Options** screen is displayed.

2. Press the **4** hotkey or tap the **Adjust Volume** button.

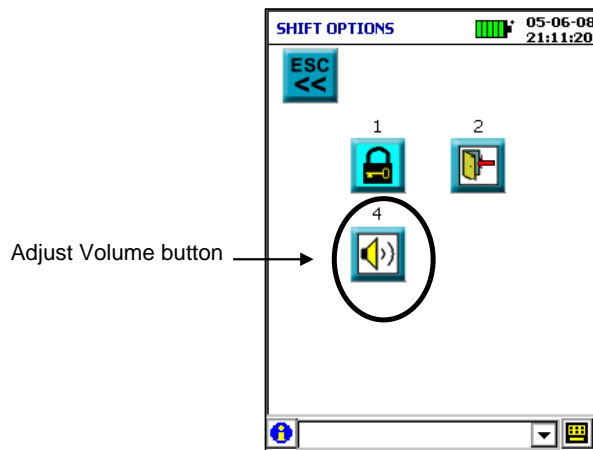


Figure 76: Shift Options screen – Adjust Volume button

The **Volume Control** screen is displayed with the slider adjusted to the current volume setting.

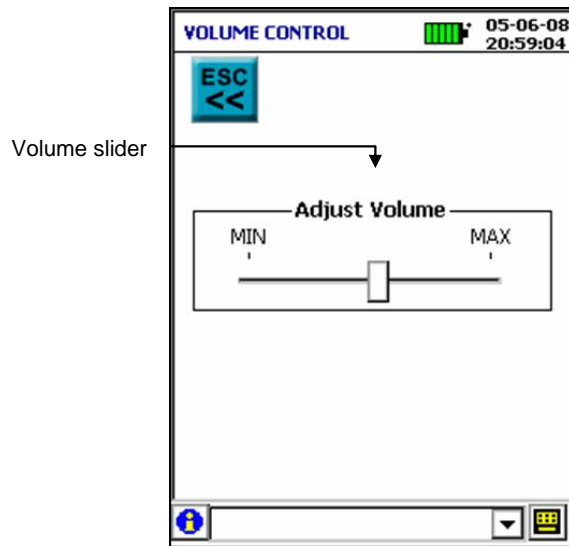


Figure 77: Volume Control screen

3. Use the stylus to drag the slider on the screen to adjust the volume.

Note: The maximum and minimum volume levels are configured in CD. When the operator ends the shift, the volume is reset to the default value.

4. When the desired volume is set, press the **ESC** hotkey or tap the **ESC** icon to return to the previous screen. The new volume setting will be saved.

6 Troubleshooting

This section describes situations in which the PFTP is not operating correctly, and possible solutions. If you are not able to correct the fault with the help of this information, please refer the PFTP to a Maintenance person, or return the device to Technical Support for their attention.

6.1 Out of Service

If the **Out of Service** screen is displayed, the reason for the fault is given in a scrollable box on screen. If the **Out of Service** message is not battery-related, you will need to refer the device to a Maintenance person.

6.2 Device Ceases to Operate

If the PFTP stops responding to keypad or keyboard input, then you should reset the device by pressing the blue **FN** key and **Enter** key at the same time, holding them down until the screen goes blank. The device will reboot and go through the startup process. If this procedure does not work or the device still does not respond to input, refer the device to a Maintenance person.

6.3 Device Will Not Restart

If the PFTP will not start, the batteries might be discharged. Recharge the batteries by placing the PFTP into the charging cradle until the batteries are fully recharged. This should be done as often as practical.

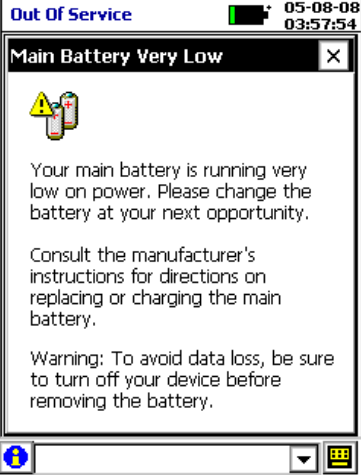

In normal use, battery charge should be verified periodically and action taken to avoid situations in which the batteries become fully discharged.

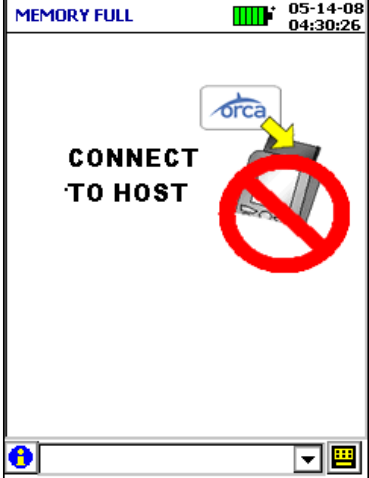
Note: If the PFTP loses all battery power, it will lose the registry content and drivers. This will require the device to be returned to Technical Support to be reconfigured.

7 Error Messages

The screens in Table 2 show various error messages that might be displayed on the PFTP.

Table 2: Error Messages

Error Message	Description
	<p>Battery Warning</p> <p>It is urgent that the Extended Battery Low warning be addressed immediately.</p> <p>If the PFTP loses all battery power, it will lose the registry content and drivers. This will require the device to be returned to Technical Support to be reconfigured.</p> <p>Note: It is most important that the device be returned to the charging cradle regularly, so that recharging can take place.</p>
	

Error Message	Description
	<p>Memory Full</p> <p>If the PFTP has not connected to the DAC for an extended period, the UD will not have been uploaded. Once the device memory becomes full, the PFTP will not carry out further activities until it has been connected to the power source, so that the DAC connection can take place.</p> <p>It is important to have regular data transfers, because the download of current CD is vital to the effective operation of the PFTP.</p>

Appendix A Terminology

This section contains lists of acronyms, abbreviations, and terms used in this document.

A.1 Acronyms and Abbreviations

Table 3 contains the acronyms and abbreviations that are specific to ERG. In general, industry standard acronyms and abbreviations are not defined in this table.

Table 3: Acronyms and Abbreviations

Acronym or Abbreviation	Definition
AFC	Automated Fare Collection
CD	Configuration Data
DAC	Data Acquisition Computer
ERG	ERG Transit Systems (USA), Inc.
ESB	ERG Service Bureau
FTP	Fare Transaction Processor
HCP	Handheld Card Processor
KCM	King County Metro
ORCA	One Regional Card for All
PFTP	Portable Fare Transaction Processor
RFCS	Regional Fare Coordination System
UD	Usage Data

A.2 Terms and Definitions

Table 4 contains the terms that are specific to ERG. In general, industry standard terms are not defined in this table.

Table 4: Terms and Definitions

Term	Definition
Automated Fare Collection	The overall process for collecting and correlating fares and transit products for the Regional Fare Coordination System (RFCS).
card	Refers to a contactless smart card. The medium used by a cardholder to store applications.
configuration data	A generic term for data that is sent to a device or host to configure its functionality.
contactless	Refers to a smart card or card reader in which the two do not have to come into contact; information is transferred via radio frequency over a short distance.
Data Acquisition Computer	A central computer that collects the data from on-board, portable, and stand-alone FTPs or other designated RFCS equipment for transfer to the Clearinghouse and provide the relevant Agency with duplicates of the data files transferred to the Clearinghouse.

Term	Definition
ERG Service Bureau	ERG's central processing center, responsible for card procurement, initialization, and distribution services. The ESB also provides second-tier customer service functionality and associated card and device management.
e-purse	An electronic representation of the monetary value on a fare card.
fare card	A non-disposable smart card for transit use.
multiride product	<p>A prepaid product that provides the cardholder with the right to travel for a specific number of journeys. For example, a ten-ride product, which offers the cardholder ten journeys. <i>See also</i> e-purse and period pass.</p> <p>A multiride product holds electronic value in ride units. A cardholder purchases a multiride product and receives a fixed number of rides on the multiride product on the card.</p> <p>The cardholder can subsequently use rides on the multiride product to pay for transit services from Service Providers that honor the multiride product.</p>
operator	The Agency staff member, ESB staff member, or any authorized person using the RFCS equipment.
pass	A card product that permits unlimited journeys by the cardholder on a specific transit operator within a specific time period.
passback	A validation condition that occurs if a smart card is presented again at the same device within a configured time, and the ticket was issued from a Period product. The term originates with the concept of a cardholder "passing back" a smart card out of a bus window to allow another person to use the card for fare payment.
period pass	An electronic record maintained on a fare card that permits unlimited rides by the cardholder on specific transit operators within a fixed amount of time. Period passes are products that cover fares less than or equal to the face value of the product. A period pass does not have the concept of a discrete remaining value that is affected on a per usage basis. <i>See also</i> pass.
Portable Fare Transaction Processor	The PFTP is a handheld computer operated by Agency personnel to process RFCS transactions where fixed position equipment is impractical. It is used for fare payment transactions and card inspection.
product	A form of contract between the product issuer and cardholder. A generic term for the collection of specific product types, i.e. multiride, period, and e-purse products.
revalue	<p>Revalue of a card comprises the following operations:</p> <ul style="list-style-type: none"> • Initial value of a fare card with a pass, multiride product, or stored value • Addition of a new pass, multiride product, or stored value to a fare card • Extension of the period for which a pass is valid • Addition of further rides to a multiride product.
smart card	A card with an embedded computer chip. A smart card is the same size as a credit or debit card.

Term	Definition
timeout	A period of inactivity that results in a device reverting back to the previous screen or logging off the operator.
usage data	A generic term for data that is generated when a transaction or event occurs. For example, a transaction record is a type of usage data.

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Appendix C References

The following materials are to be used in conjunction with or are referenced by this document.

- [1] Contract 229944 (April 29, 2003)
Division III: Equipment Specifications.
- [2] SEA-01052
Portable Fare Transaction Processor (DR 105B) - Functional Specification

Appendix D Document History

Revision	Revision Date	Reason for Issue	Author
0.1	16 Feb 2006	Initial draft	David Lockett
0.2	21 Feb 2006	Edit/format for submission	Stephen Lynch
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